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Is Facebook a Similar Learning Tool for University Students as LMS?

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Abstract

The study was conducted to examine what university students in the Czech Republic do on their computers during class and leisure time and the extent to which use of information and communication technologies for learning activities. In study a sample of 512 students from three Czech universities completed survey measuring their behaviors connected with using computers for their learning. Based on research results we can argue that Facebook is really important for their learning. Students are using both e-learning courses and Facebook in their learning. 77% of respondents (university students) use Facebook several times a day or practically always. Only 44 participants (9%) stated that they are not members of any study group on Facebook. The use of Facebook and e-learning (course in LMS) for their learning is almost similar.

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Keywords: Facebook; e-learning; university students; teaching and learning process

1. Introduction

The Czech Republic was connected to the Internet in 1991. The factors like improvements in equipping households and businesses with computers and their connection to the Internet contributed to the development of ICT use in teaching and learning process in the Czech Republic significantly.

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It is important to underline, that even around the year 2000, we could still hear in the Czech Republic opinions that the Internet was too costly for primary and secondary schools and the question was how it could be used in the field of education. It was unusual to regularly use Internet for implementation of ICT in teaching and learning process and for communication of schools with public (Eger, Petrtyl, 2012).

A key role was played the project called "the Internet into schools" (implementation since the year 2001) by means of which all schools were connected to the Internet, a number of schools were equipped with special computer classrooms. The methodology system to support ICT application at schools was also created.

Following the above facts let us give some data taken over from the Czech Statistical Office (2013, 2014):

Information technologies in schools play an important role in the dissemination of information and as supporting tool for teaching and learning process. The progress of information technologies is moving so fast. The Internet was used since 1991 at Czech universities. Significant development of ICT in education at primary and secondary schools occurred until after 2000. For the year 2013 CSO stated that number of computers per 100 students is 26,1 in basic school (ISCED 2), 20,8 in secondary schools (ISCED 3+4) and 40,2 in higher professional schools (ISCED 5B). All primary and secondary schools have internet connection since 2001. (CSO, Information technologies, 2014).

Households and their equipment with computers as well as their connection to the Internet: 1.8% households had a computer in the year 1989, in the year 2000 it was 17.9%, in the year 2005 it was 30% and in the year 2013 it was 67.3% households. The Internet connection has been monitored since the year 2001, when 5.8% households were connected to the Internet, in the year 2005 it was 19.1% and the number rose to 67% in the year 2013. 68% of Czech households had any type of computer and 98% had mobile phone. (CSO, Information society in figures, 2014).

Companies in the Czech Republic and their connection to the Internet: As early as in the year 2003 almost 90% companies were connected to the Internet. The proportion of the Internet connection was lower with smaller companies (88.4%) and higher with larger companies (99.1%). Today, both are almost 100%. (CSO, Information technologies, 2014).

As a result of the above, but also by means of other projects and through the orientation to the system of e-government, the ICT skills of the population of the Czech Republic have been gradually growing (especially with the young generation but later also with the middle aged generation). Even though there are frequent problems with the innovation of the technical aspects of ICT at schools, but a lot of them have good basic equipment and a fast connection to the Internet. Moreover, thanks to a number of projects, teachers´ abilities and skills in the ICT field have improved.

2. E-learning development in the Czech Republic

There are lots of definitions of e-learning but we use the so called complex one. (Horton, 2006, p. 1) "The e-learning is the use of information and computer technologies to create learning experience". This definition is as an "umbrella" term that covered all old and new forms or types of e-learning.

The approach to e-learning has undergone major changes also in the Czech Republic (Eger & Egerová, 2013), from the initial stage where the major role was played by technology (the turn of the millennium), to a later stage where more and more attention was paid to the pedagogical aspect of e-learning, including, for example, the learning theories (Hašková, 2004; Klement, 2012; Eger, 2012; Turčáni, Magdin, 2012; Gangur, & Martinovský, 2013; Tomczyk, & Wąsiński, 2014), for the enhancement of the effectiveness of the educational process connected with ICT (cf. Khan, 2005; Carliner, Shank, 2008). A synoptic comparison of the advantages and disadvantages of e-learning (e.g. Egerová, 2012; Zounek, Sudický, 2012) can also be considered significant.

Even in 2005, nobody had expected that new development of social networking technologies will have significant influence on the teaching and learning process at our schools. But social media in education has become hot topic and the main question is: Can social networking technologies have positive influence on education?

3. Social media in the Czech Republic

Not only development of e-learning in the Czech Republic (CZ) is specific (Eger, & Egerová, 2013) but also the use of social media in the Czech Republic is different in to comparison with situation in USA or in England.

The Czech social media landscape has undergone intensive changes in the last decade. The use of social media in the Czech Republic has been on an increasing trend over the last few years. The most popular network is Facebook. The number of registered Facebook users was 3 834 thousand in 2014 (Internet World Stats, 2014). Currently, the largest age group of users is in the age range of 25 to 34, followed by users in the age range of 18 to 24 and then 35 to 44.

LinkedIn (242 thousand users in CZ) is very popular as a network for professionals and entrepreneurs, as well as for university students and Twitter (150 thousand users in CZ) is not yet popular in the Czech Republic. Continues to grow of Google+ (400 thousand users in CZ) but Facebook is still the leading social media network namely for young people and continues to grow. In controversy with the above mentioned facts, the Czech social networks (e.g. Lidé) have few users. Currently is the growing interest in the use of enterprise social networking in the business area in the Czech Republic. YouTube is most popular and 5 600 thousand Czech users visit this channel per month. Among viewers under 35 years old is more popular than any TV channel (effectic.com, 2014)

3.1. Social media and education

Today information is more accessible via ICT on all levels than it ever was before. Also social networking technologies, that let people share what they know and what they think, open a lot of educational opportunities and of course bring more access to world opinion for young people.

What advantages and disadvantages do people discuss when they consider suitability of social media for education?

Social networking technologies can have a positive influence on education. Social networks make communication easier not only with friends and family but also with other students and perhaps with teachers and other experts. It allows students to work together, to organize their activities and to remind tasks etc.

On one hand, social networking allows the information exchange and to open discussion about topic with other people. In this case social media should be tool for improving the quality of learning process. Outside of the classroom settings, students may share ideas, use informal searching, discuss issues, and even join another group of friends. Social media can help everywhere where the support for distance education is needed.

On the other hand some people argue that social media are seen as more of an arena for fun and games. It is not a serious environment for teaching and learning process. Students often spend time on their social networks rather than they learn. Social media have a lot of positive attributes but they are not tied to the education system. There is also problem with physical interactions extinct. It appears the problem with reducing the real communication face to face. Young people are becoming less and less capable of having interactions with human beings.

There is controversy. On one hand, lecturers document inappropriate utilization of computers and mobile devices during class time. On the other hand, there exist a lot of examples how to use ICT in teaching and learning process to support learning activities and learning outcomes.

Nowadays high school graduates have good ICT skills, have access to the internet at school and at home, and it is common for them to use the devices for social networking (notebooks, mobile phones, tablets). Current university information systems support data and information processing, sharing and storage knowledge etc. (Rosman &Buřita, 2014).

4. Research methodology

4.1. Purpose

The study was conducted to examine what university students in the Czech Republic do on their computers during class and leisure time and the extent to which the use of information and communication technologies are associated with learning activities. The research questions are:

- How many times a day, week or month do university students connect to Facebook?
- Do they use Facebook for learning?

- Is Facebook suitable tool for their learning?
- Is E-learning (course in LMS) suitable tool for their learning?

4.2. Measures and procedures

The items of the questionnaire were generated as a team work during a workshop with students from the Faculty of Arts in Prague from the study programme of Adult Education. That means that the first version of the questionnaire has been prepared by future experts for adult education that were familiar with ICT. The students have used notebooks, mobile phones, social media (mainly Facebook) and for e-learning LMS Moodle. The items were also inspired by theory of e-learning (Horton, 2006; Khan, 2007; Carliner, Shank, 2008) and by study focused on e-learning development in the Czech Republic (Eger & Egerová, 2013). This process of questionnaire design ensured that questionnaire actually represents the reality of what we are measuring.

Questionnaire was administered electronically using internet (Google docs). The questionnaire was tested with 20 respondents. In the second step – after this pre-test, some questions were modified for greater clarity.

4.3. Participants

A sample of 512 full-time students (27% male and 73% female) from three public universities in the Czech Republic participated in this study. They were studying economics (56%), arts (21%), sciences (11%) and others – mostly health sciences (12%).

After providing their electronic informed consent, participants received a link to complete an online questionnaire. Participants were instructed to complete the questionnaire at the time of their choice alone.

5. Results

The first items explain behavior of the students on Facebook. This social network is number one in the Czech Republic and it is very popular with students. 77% of respondents (university students) use Facebook several times a day or practically always.

Some other research findings from this study are: 57% respondents use for connection to the internet three main devices: PC, notebook and mobile phone, 26% use only PC and notebook. Tablet is still less used device.

Only 9% of participants stated that they are not members of any study group on Facebook. 18% of participants stated that teacher (lecturer) is active member of their study group on Facebook.

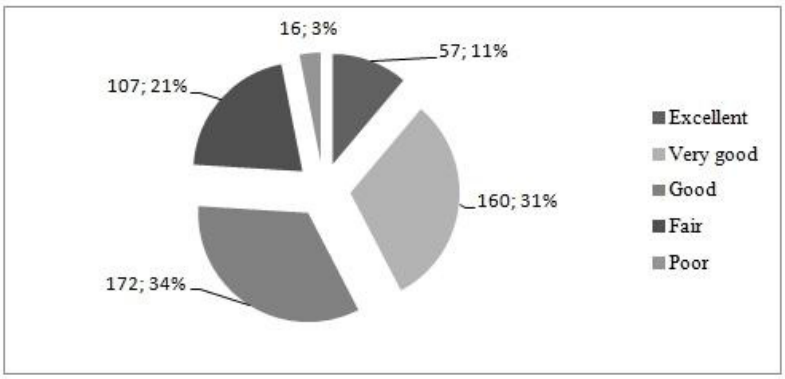

Fig. 1. Facebook is suitable for learning - student assessment

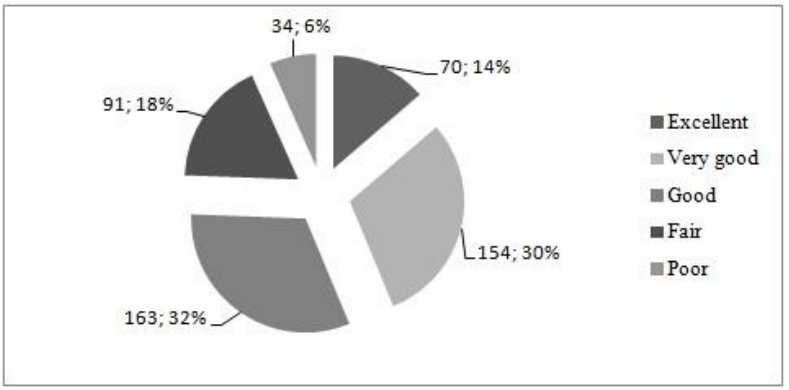

Fig. 2. E-learning is suitable for learning (course in LMS) – student assessment

Results of student assessment of Facebook and E-learning (course in LMS) for learning purpose are almost similar (Fig. 1, 2). We did not expect this result because we assumed that students with experience of learning support by LMS will assess e-learning better than learning support via Facebook. But the reality is that these days Facebook takes place in university students´ heads as suitable learning tool. This fact opens up discussion about influence of informal learning and about importance of collaborative tools for young people.

Two-dimensional pivot table (tab. 1) compares the summarized data.

Tab.1. Student assessment of Facebook and of E-learning (course in LMS) for learning purpose

Student assessment (frequency distribution)						
Facebook	**E-learning (LMS)** - suitable tool for learning					
suitable tool for learning	Excellent	Very good	Good	Fair	Poor	**Sum**
Excellent	11	14	20	8	4	57
Very good	20	46	51	35	8	160
Good	22	60	51	30	9	172
Fair	13	32	33	18	11	107
Poor	4	2	8		2	16
Sum	**70**	**154**	**163**	**91**	**34**	**512**

Based on gained data we have formulated the following additional question: Is there a significant relationship between student assessment of Facebook and of E-learning (course in LMS) for learning purpose?

H_0: Student assessments of Facebook and of E-learning (course in LMS) are independent of each other.

H_A: Students that use Facebook for learning will use more frequently E-learning (course in LMS).

We used chi square test to discover whether there are statistically significant differences between the observed frequencies and the expected frequencies of two variables presented in cross-tabulation. We must accept null hypothesis (x^2 = 18,043, α = 0,05), the frequency of student assessments is normally distributed. There is not correlation between the two variables. We assume that the findings opens up new research questions focused on young people and their learning with ICT support.

Research limitations: this paper provides only partial outputs of one of the first survey focused on Facebook and its teaching and learning opportunities in the Czech Republic.

6. Conclusion and discussion

This study provided information that could by useful for university lecturers and administrators. Based on the survey results, we can state that Facebook has real significance for teaching and learning process (cf. Chou & Pi, 2015). Students were using both e-learning courses and Facebook in their learning. The potential influence of study groups on Facebook (representative of social media) is higher than the lecturers think. The lecturers need to adopt teaching behaviors that would match the ever growing usage of technological devices and internet (Gaudreau, Miranda, & Gareau, 2014). Further research should be oriented on both time spent on Facebook and time spent on learning activities on Facebook (Junco, 2012). It is necessary to pay attention to innovation and new forms of e-learning.

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